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Regulation of sulfate metabolism in C4 plants

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Propositions accompanying the dissertation

Regulation of Sulfate Metabolism in C₄ Plants A Whole Plant Perspective

Ties Ausma

- I. Sulfate deprivation deteriorates the production of floral displays, which likely has consequences for plant fitness.
Chapter 2
- II. The fumigation of plants with subtoxic levels of hydrogen sulfide (H₂S) provides valuable insight into the regulation of sulfate uptake and reduction.
Chapter 3
- III. Observations on the regulation of sulfate metabolism cannot be generalized from one plant species to another.
Chapter 4, 6, 7 and 8
- IV. H₂S does not control stomatal aperture dynamics.
Chapter 5
- V. At the whole plant level, C₃ and C₄ plants do not feature marked differences in the regulation of sulfate uptake and reduction.
Chapter 6
- VI. The transcription levels of transporters and enzymes involved in sulfate uptake and reduction provide only limited insight into how much sulfate a plant metabolizes.
Chapter 8
- VII. The content of glutathione is not a relevant indicator for plant stress tolerance.
Zuidersma et al. 2020 Plant Biol. 22: 331-336
Prajapati et al. 2020 J. Cultiv. Plants 72: 473-478

- VIII. Humanity is waging a suicidal war on nature.
Antonio Guterres, secretary-general of the United Nations
- IX. The Dutch government should develop an environmentally and socio-economically friendly long-term vision on the future of its countryside.
- X. Being yourself is the very best thing to do.
- XI. Dum vivimus, vivamus.